

FIG. 1

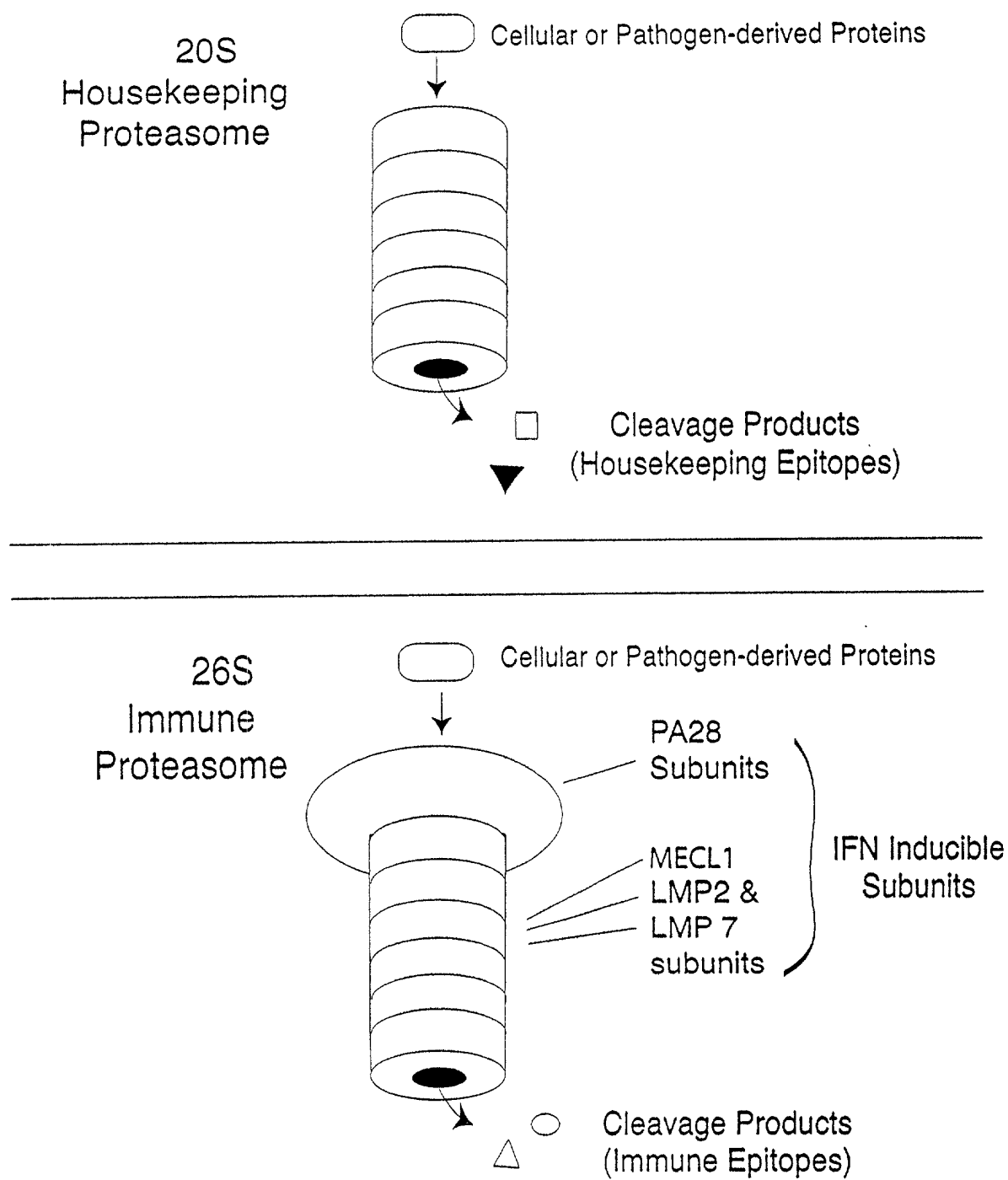


FIG. 2

"Antigen Synchronization" Between Infected Cell and APC Results in T cell Response That Recognizes Virus Epitope

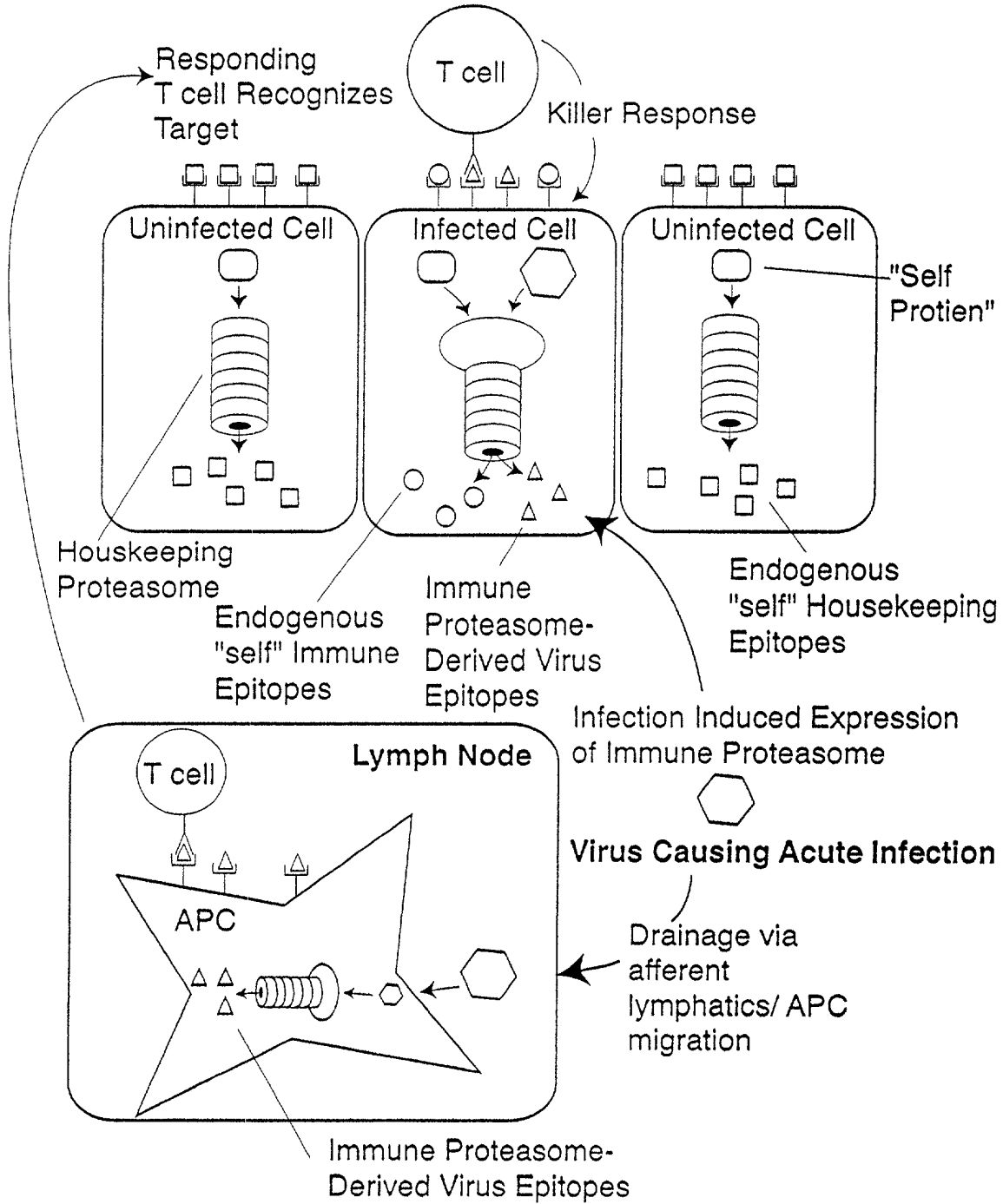


FIG. 3

T cell does not recognize Housekeeping Epitope (Tumor survives)

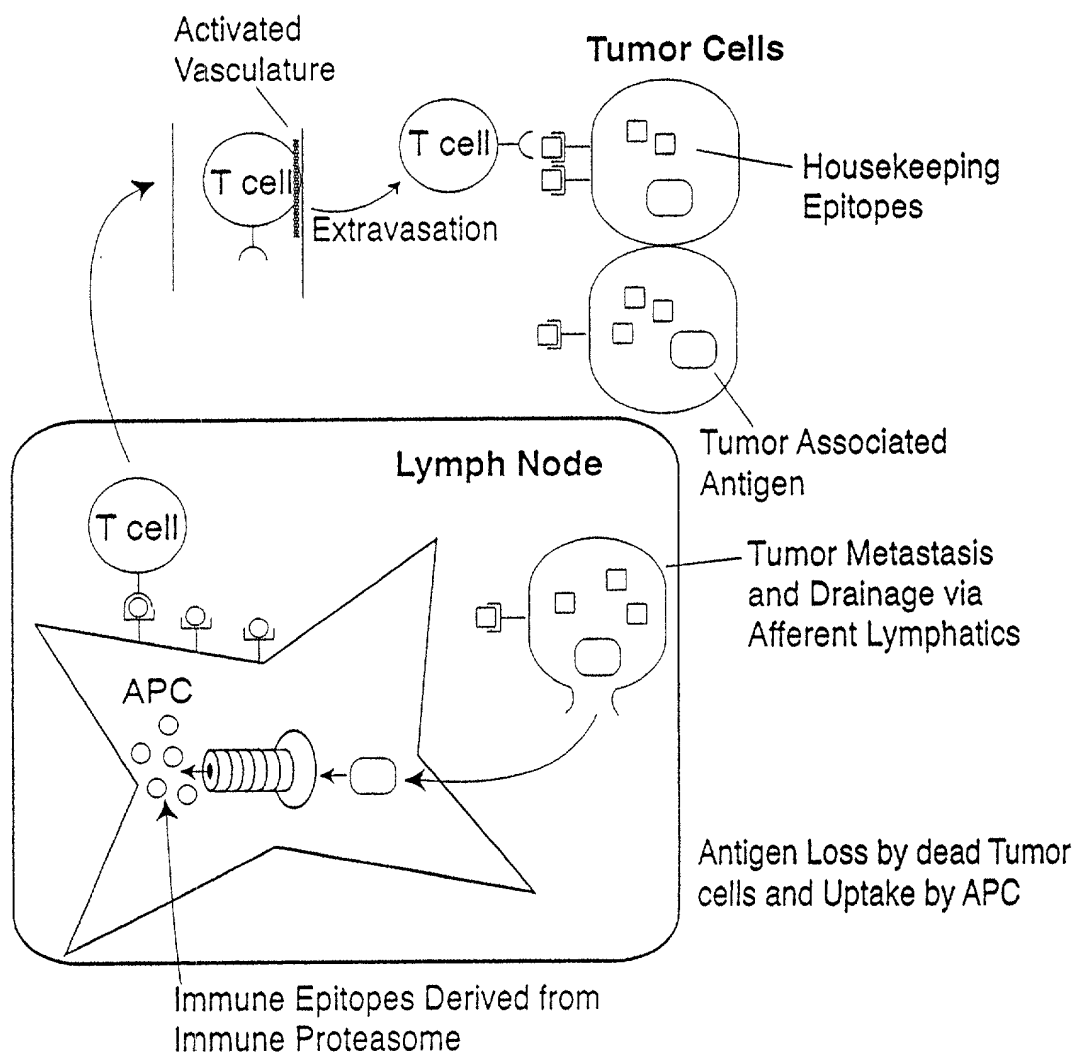


FIG. 4

T cell does not Recognize Virus Epitope
Produced by Housekeeping Proteasome.
Infected cell Survives.

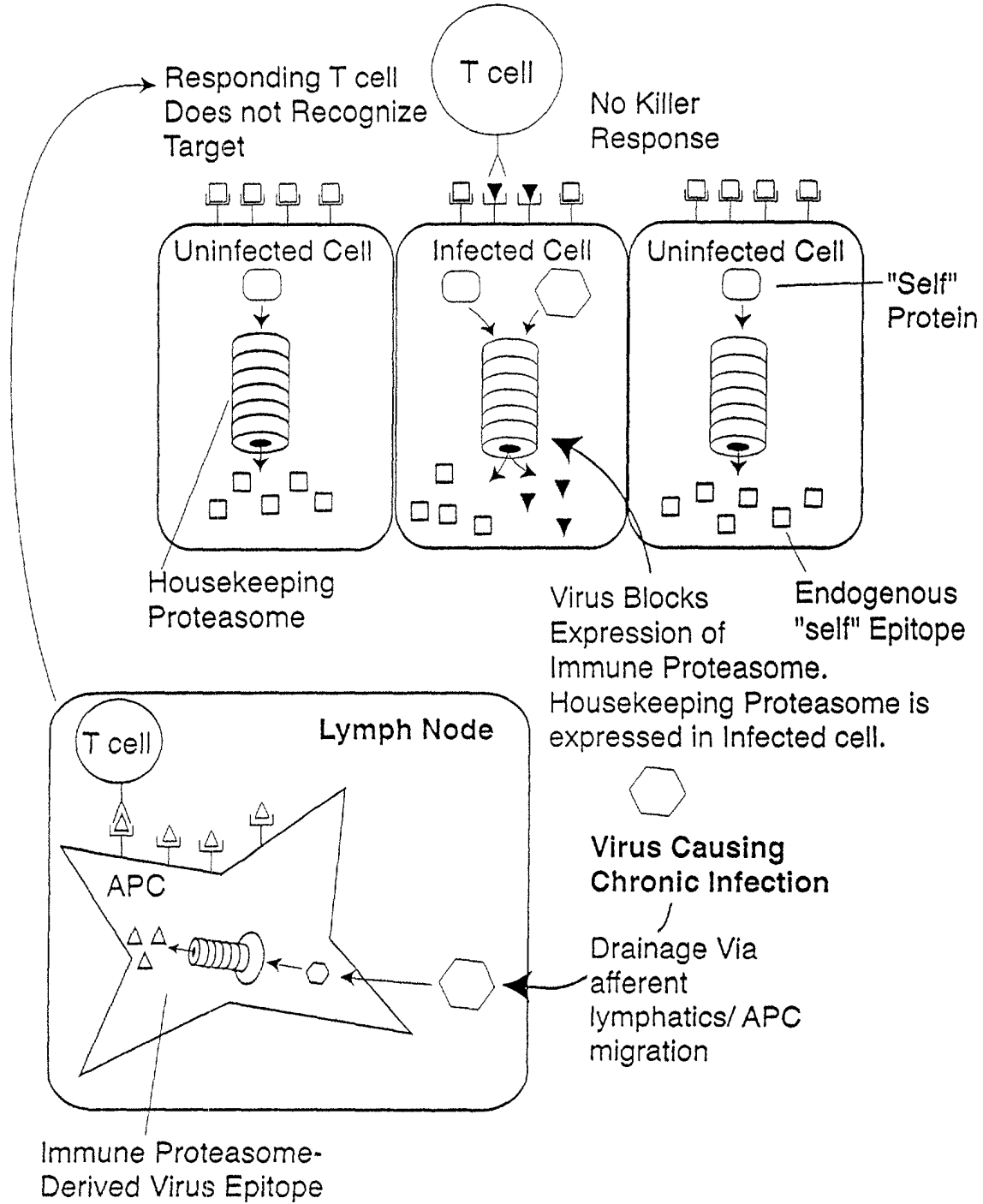


FIG. 5

IFN γ Production by T cell May Induce
Expression of Immune Proteasome
in some adjacent Tumor Cells. T cells
kill Tumor cells.

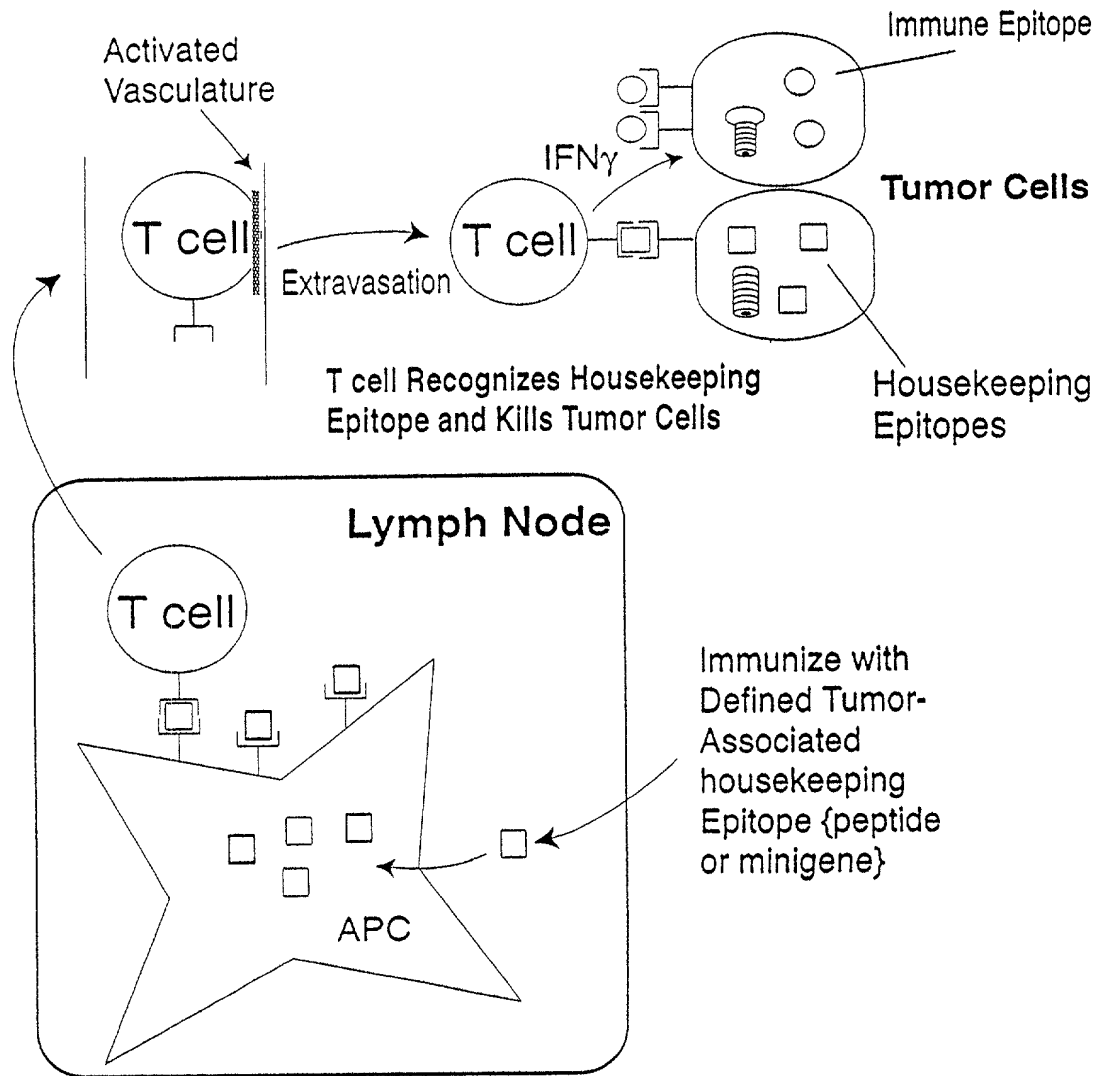


FIG. 6

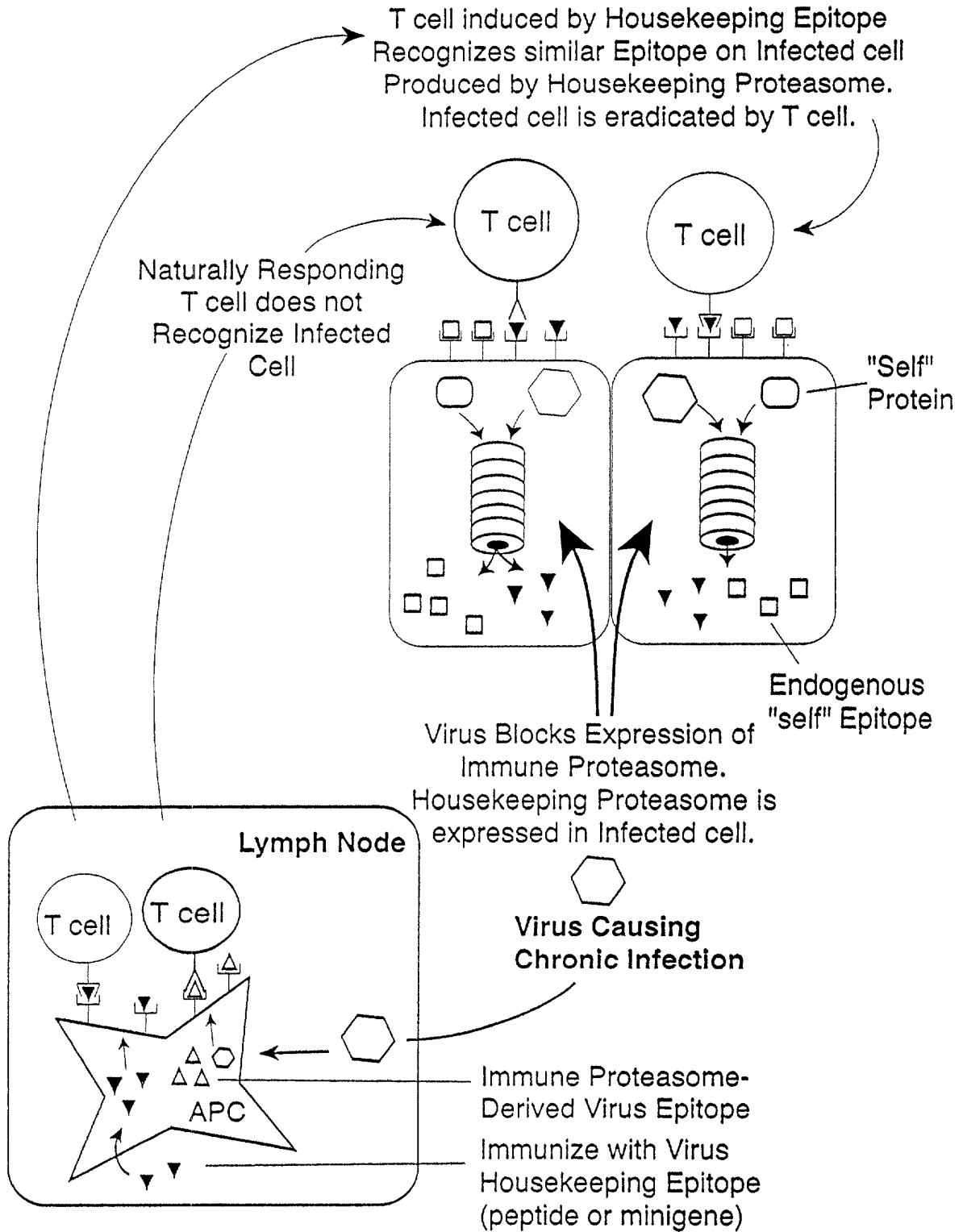


FIG. 7

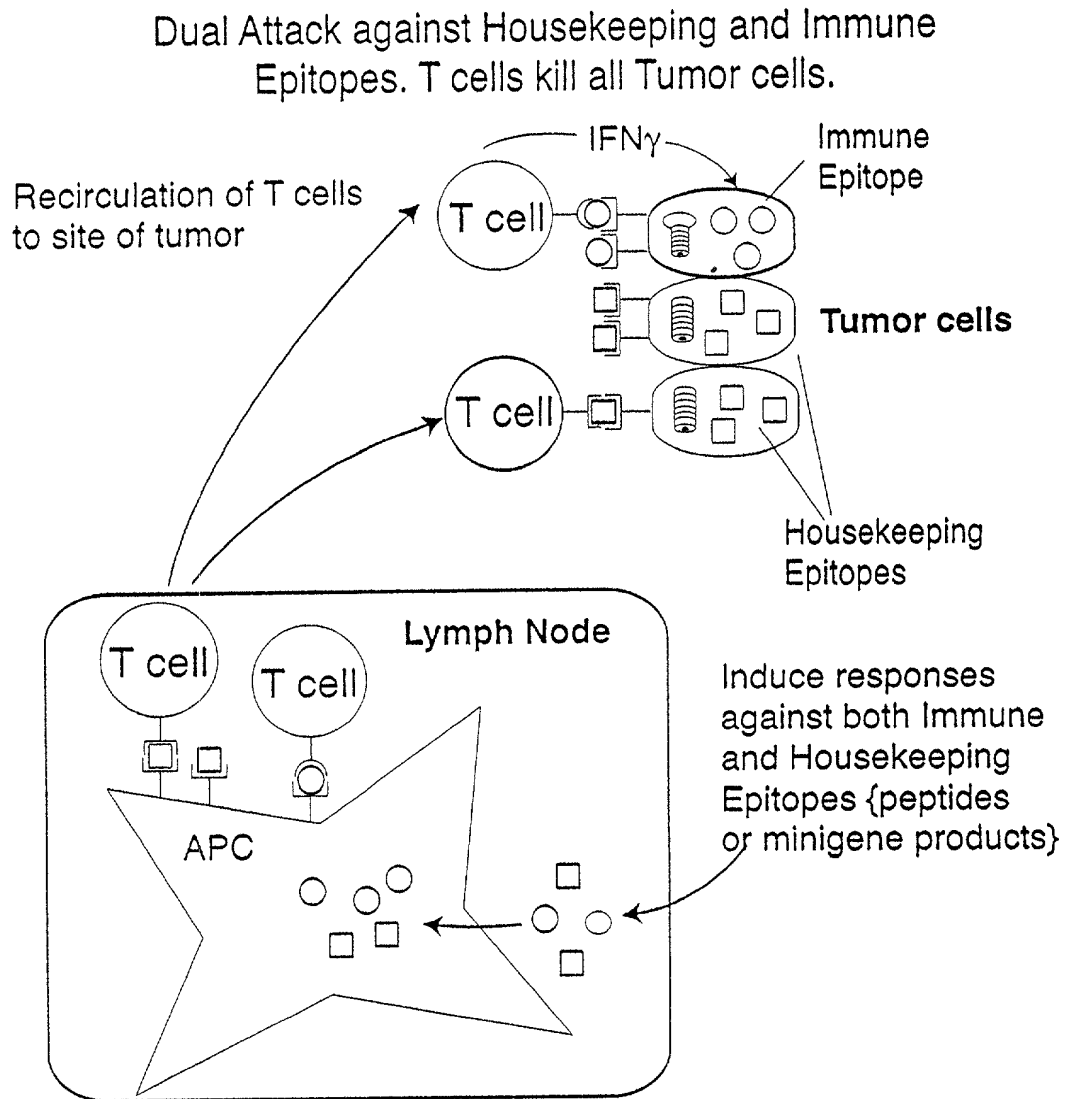


FIG. 8

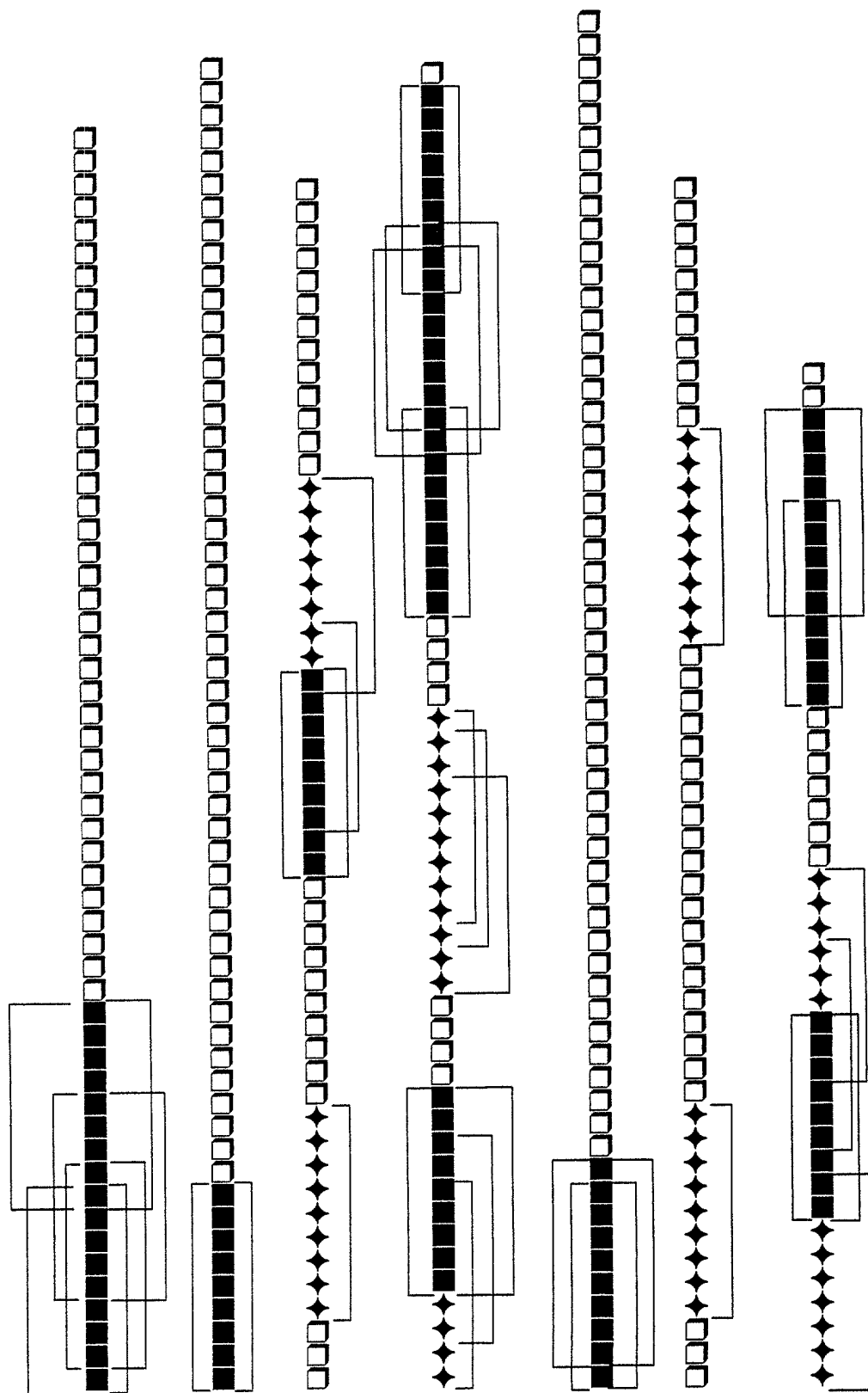
TYROSINASE

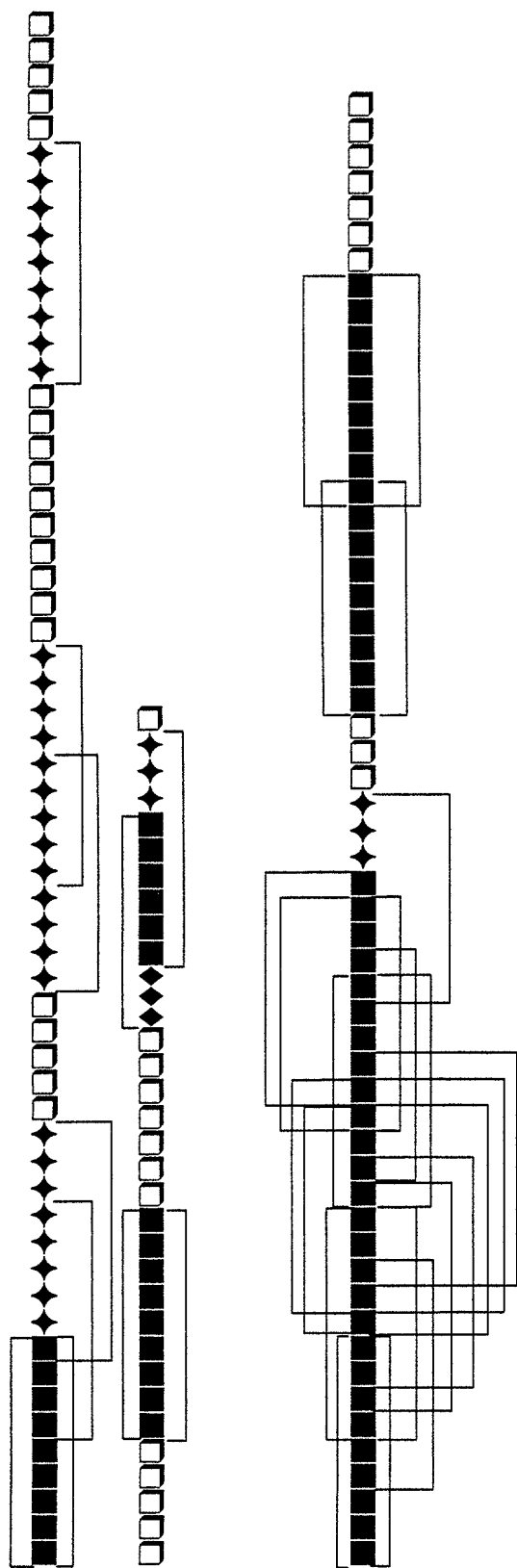
FIG. 9A

FIG. 9B

9
G.
F

FIG. 9A





- = an amino acid position not part of any epitope.
- = an amino acid position in an epitope according to both the SYFPEITHI and NIH algorithms.
- ◆ = an amino acid position in an epitope according to the NIH algorithm.
- ◆ = an amino acid position in an epitope according to the SYFPEITHI algorithm.

FIG. 9B

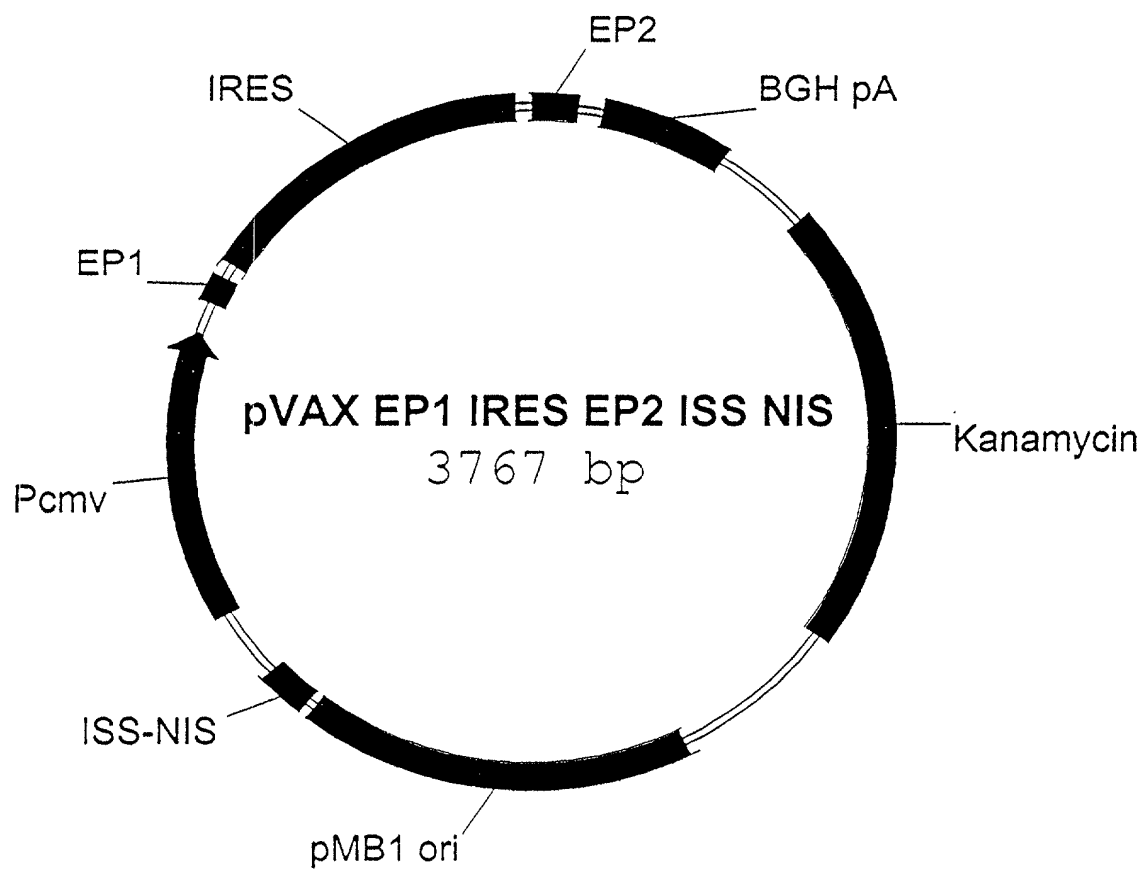


FIG. 10 A

10035065-120701

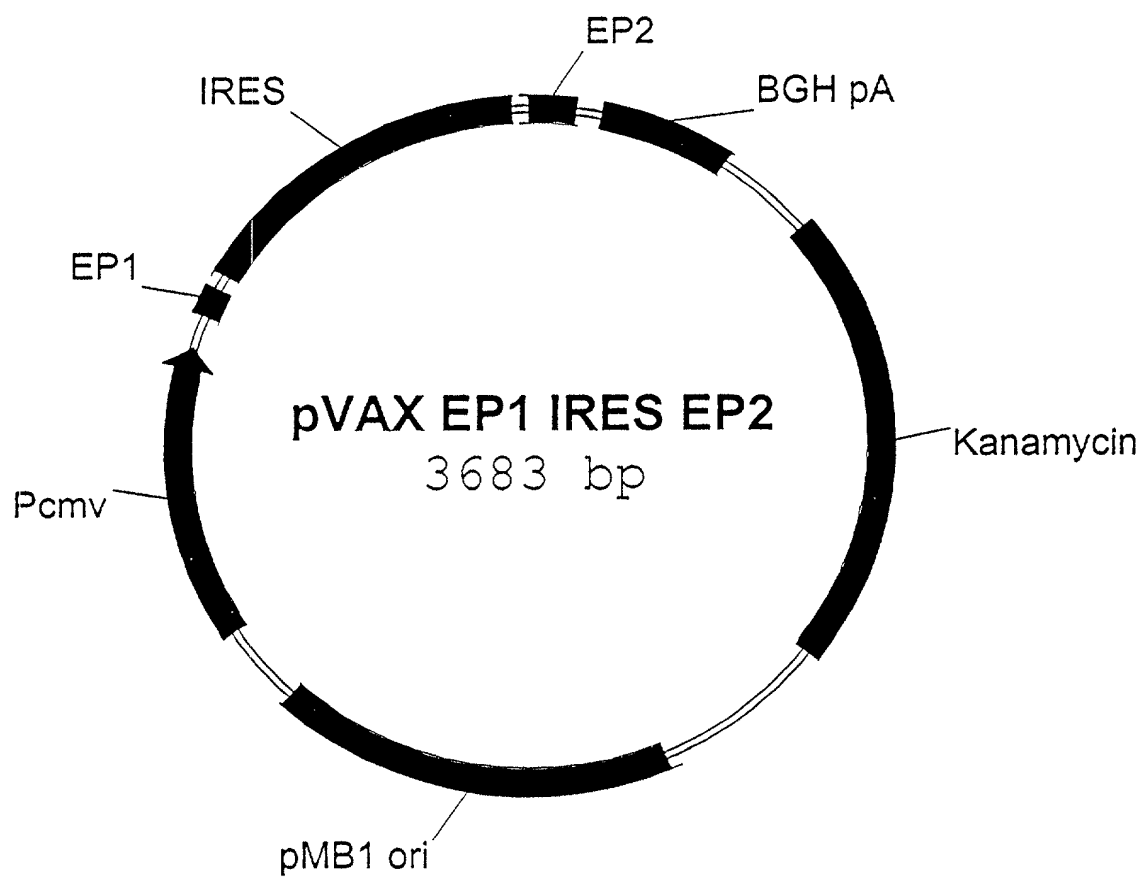


FIG. 10 B

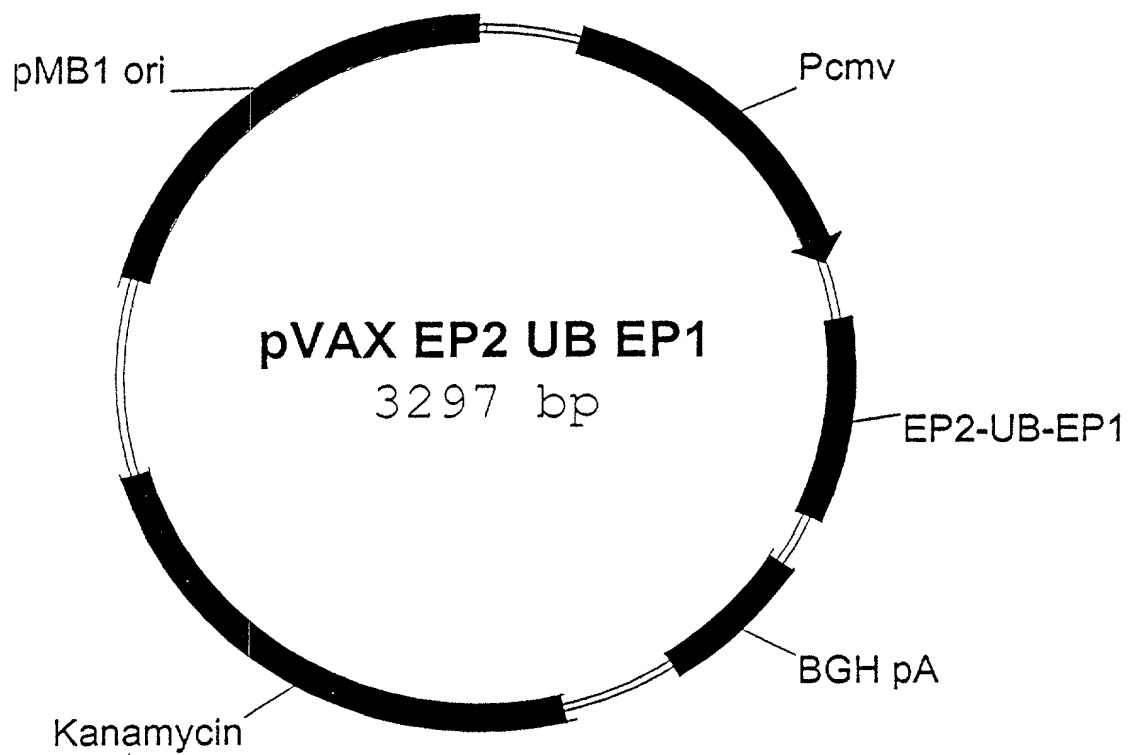


FIG. 11

10026066.120701

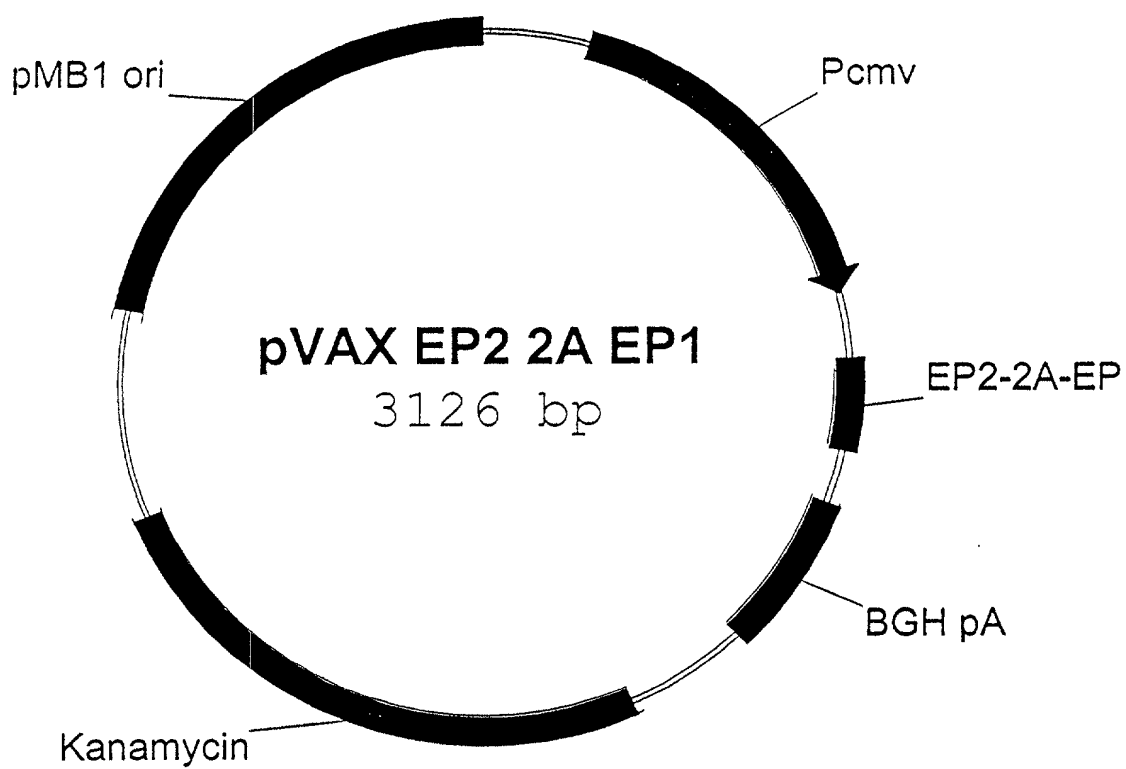


FIG. 12

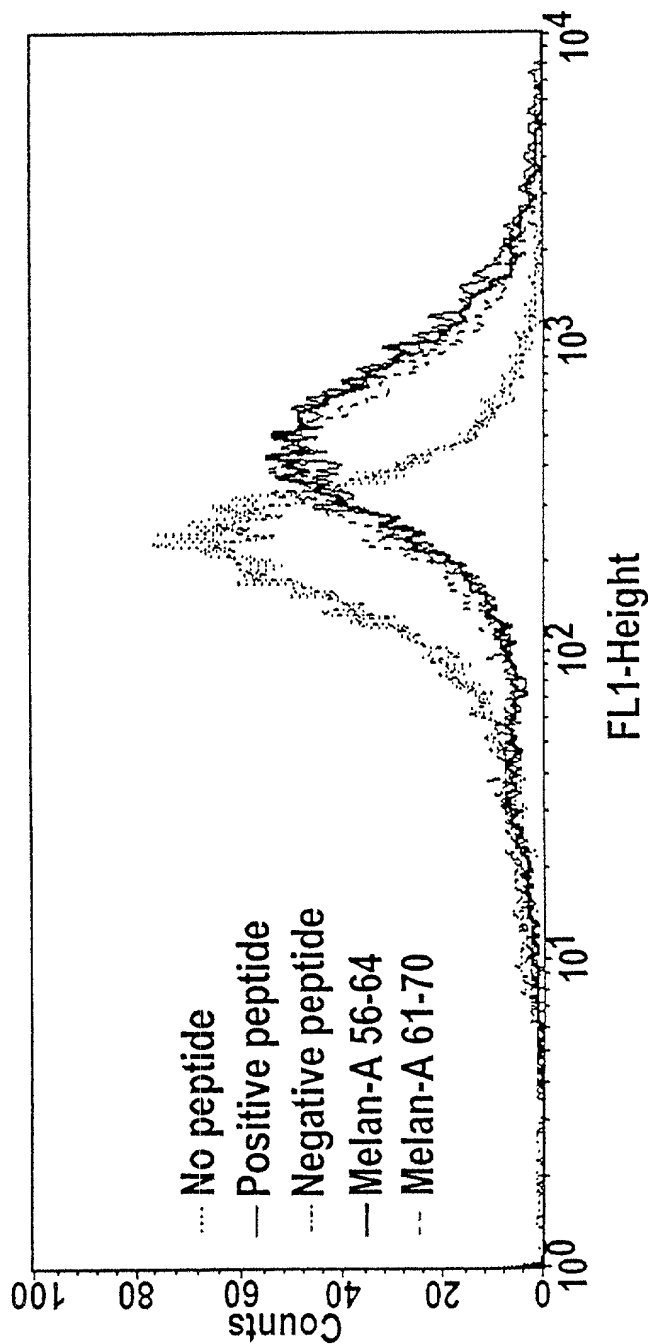


FIG. 13

No Peptide

File: Data.004

Total Events: 10000

Marker	Events	%	Total	Mean
All	10000	100.00	238.79	

Melan-A 56-64

File: Data.009

Total Events: 10000

Marker	Events	%	Total	Mean
All	10000	100.00	535.86	

FL1-Height

A2 Positive peptide

File: Data.005

Total Events: 10000

Marker	Events	%	Total	Mean
All	10000	100.00	604.21	

Melan-A 61-70

File: Data.011

Total Events: 10000

Marker	Events	%	Total	Mean
All	10000	100.00	481.94	

Positive peptide FI = 1.53

Melan-A 56-64 FI = 1.24

Melan-A 60-69 FI = 1.02

Tyrosinase peptide 207-216 binds to human MHC I on T2 cells and enhances its expression

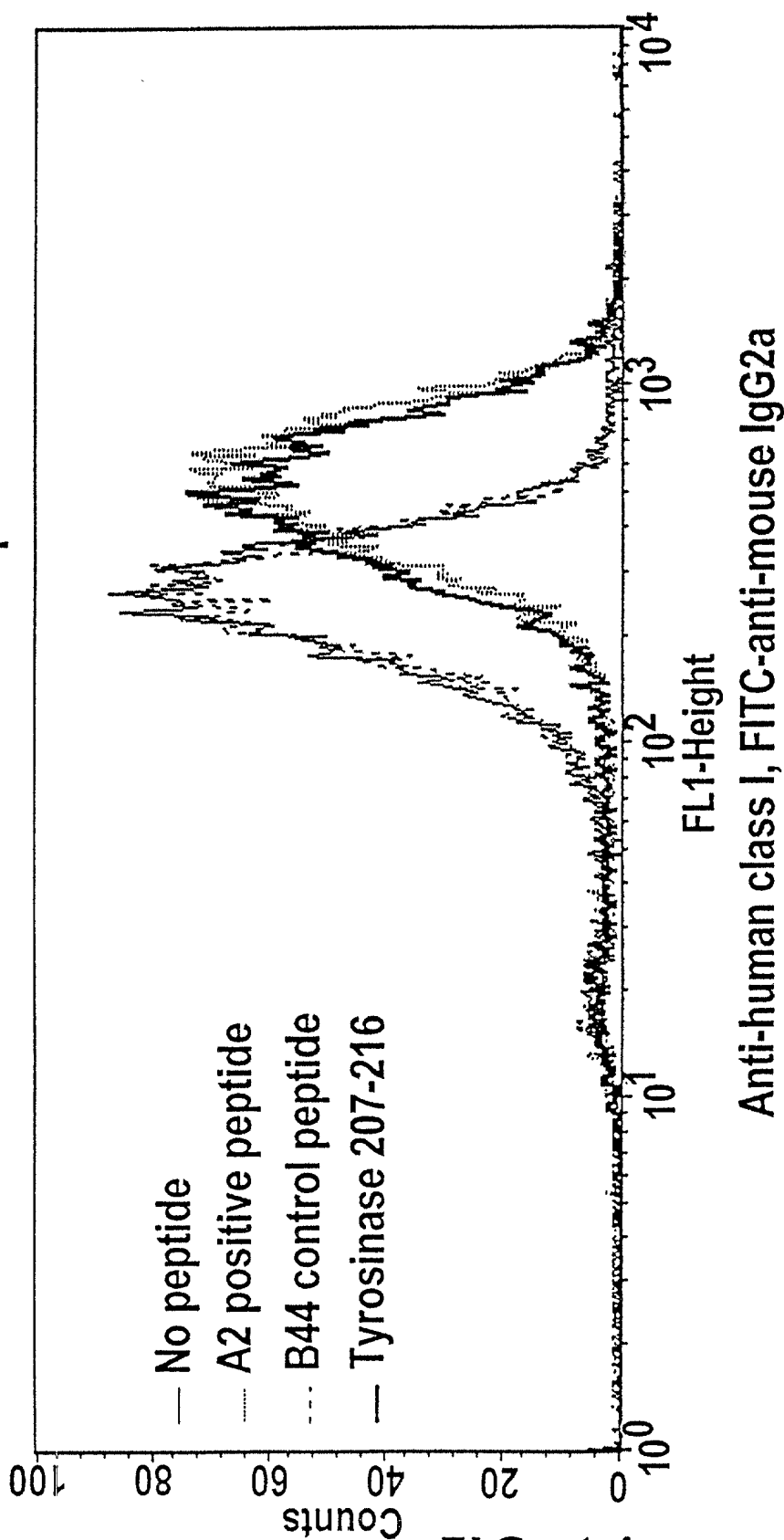


FIG. 14

Melan-A Class I HLA-A2 Epitopes

FIG. 15

MPREDAHF I YGYPKKGHGHSY TTAEEAAG I GILTVILGVLL LIGCWYCR

RRNGYRALMDKSLHVGTQCALTRRCPQEGFDHRDSKVS LQEKNCPEVVP

NAPPAYEKL SAEQSPPPYSP

MNGDDAFARRPTVGAQIPEKIQA¹AFDDIAKYFSKEFEWEKM

KASEKIFYVYMKRKYEAMTKLGFKATLPPFMCNKRAEDFQ

GNDLDNDPNRGNQVERPQMTFGR¹LQGISPKIMPKKPAEEG

NDSEEVPEASGPQNDGKELCPPGKPTTSEKIHRS¹GPKRG

EHAWTHRLREKQ¹LV¹IYEEISDP¹EEDDE

FIG. 16

MQAEGRGTGG STGDADGPGG PGIPDGP GGN AGGPGEAGAT

GGRGPRGAGA ARASGPGGGA PRGPHGGAAS GLNGCCRCGA

RGPEs [RLLEFYLAM] PFATPMEAE LARRSLAQDAPPLPVP

[GVL LKEFTVSGN] [ILTIRLTAA] DHR
 [QLQLSISSCLQ] [QLSLLMWIT] [QCFLPV] FLAQ PPSGQRR

FIG. 17

TYROSINASE

MLLAVLYCLLWSFQTSAGHFPRACVSSKNLMEKECCPPWSGDRSPCGQLSGRGSCQNILLSNAPLGP
QFPFTGVDDRESWPSVFYNRTCQCSGNFMGFNCNCKFGFWGPNCTERRLLVRRNIFDLSAFEKDKF

FAYLTLAKHTISSDYVPIPIGTYGQMKNGSTPMFNDINIYDLFVWMHYVSMALLGGSEIWRDI

DFAHEAPAFLLPWHRFLLRWEQEIQKLTGDNFTIPYDWRDAEKCDICTDEYMGQHPTNPNNLSP

ASFFSSWQIVCSRLEEYNSHQSLCNGTPEGPLRRNPGNHDKSRTPLPSSADVEFCLSLTQYESGSM

DKAANFSFRNTLEGFASPLTGIADASQSSMHNALHIYMNGTMSQVQGSANDPIFLLHHAFVDSIFEQ

WLRHRPLQEVPPEANAPIGHNRESYMPFIPLYRNGDFFISSKDLGYDYSYLQSDPDPS

FQDYIKSYLEQASRIWSWLLGAAWVGAULTALLAGLVSLCRHKRKQLPEEKQPLMEKEDYHSLYQ

SHL

FIG. 18